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ABSTRACT

This document takes a comprehensive look at the resources, problems, and needs of the literacy field and focuses on the long-term requirements for expanding literacy services and ensuring high quality instruction in the United States. (A major conclusion is that the present system, with proper funding and other resources, has the capacity to expand its present service level from about 5 million to 10-15 million persons annually.) The first chapter analyzes what constitutes literacy in the United States today. The second chapter, entitled "Teaching the Functionally Illiterate: A Map of Programs and Providers," includes sections on the following topics: federal programs; Laubach Literacy Action and Literacy Volunteers of America; community development agencies, churches, and community colleges; business and labor; public schools; interpreting the figures; participation; curricula and instructional approaches; professionalism; and future needs. The third chapter covers the provision of literacy instruction through a discussion of outreach and recruitment, curriculum, teachers, facilities, costs, volunteers, and future needs. In the last chapter, recommendations are given for short-term supports, short-term operations, long-term supports, and long-term operations. A list of 10 references concludes the document. (CML)

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TURNING ILLITERACY AROUND: An Agenda for National Action

Working Paper No. 2

prepared for

The Business Council for Effective Literacy

by

David Harman

Columbia University

May 1985

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BCEL Foreword

The Business Council for Effective Literacy was formed in late 1983 to encourage business and industry to join in the fight against adult illiteracy and to help give guidance on how to do it. To give solid guidance, however, we have had to concern ourselves with the role of both the public and the private sectors in the field. And we have been striving to develop and provide information and analyses that will help both sectors better understand the scope and complexities of the illiteracy problem as well as the steps that each can best take in a combined effort to overcome it.

Although BCEL is not primarily a grantmaker, one of our early actions was a $400,000 grant to help launch the three-year national awareness campaign of the Coalition for Literacy and the Advertising Council. This campaign is expected to generate a greatly increased demand on literacy programs to deliver services to a growing number of adults.

Yet literacy programs today are already stretched to capacity in their level of service, and most have long waiting lists of tutors and students they lack the resources to train and serve. Concerned that they might be overwhelmed by the campaign's response unless intensive planning took place quickly on a state-by-state basis, BCEL has been working to help advance that goal. Even more urgent though was the obvious need for substantial new funding for the field. But how much funding? For what purposes? In the short-run? In the long-term? And how much could the business community reasonably be asked to do?

To begin to answer these questions, we commissioned two working papers, now being made available as separate monographs under the shared title **TURNING ILLITERACY AROUND: An Agenda For National Action.** This paper, **Working Paper No. 2,** was written by David Harman of Columbia University. Dr. Harman is one of the world's foremost adult education experts and his services are in great demand in the literacy field both in the U.S. and abroad. Primarily a learning theorist and researcher, he also has a good practical grasp of how to implement policy and programs.

The Harman paper takes a comprehensive look at the resources, problems, and needs of the literacy field. It examines short-term needs, but focuses more on the longer-term requirements for expanding literacy services in the country and assuring quality instruction. The first part of the paper provides an in-depth analysis of what constitutes literacy in the U.S. today. The second section gives a detailed map of programs and provisions for basic skills instruction and tutor training (including military and business programs). It analyzes the level of service provided, the quality of that service, and the capacity of the system as a whole to grow and to provide good instruction. One major conclusion reached is that the present system has the capacity, with proper funding and other resources, to expand its present service level from about 5 million (including corporate-sponsored and college programs) to 10-15 million persons annually.

A third section of the paper provides a point-by-point assessment of what it will take to expand and refine the present system but also to move beyond that to other forms of service delivery. Among the issues examined is the increasing role and use of volunteers in the field. While recognizing their continuing importance, Dr. Harman questions whether volunteers will be able to contribute everything that is presently being expected, and he discusses the myth that it is free or low-cost to use volunteers. The section ends with a look at the cost implications of a comprehensive and quality national program to address the adult illiteracy problem. Dr. Harman estimates that when fully implemented it would take a public and private-sector expenditure in the range of $7-9 billion annually. And, finally, the paper ends with recommendations for short and long-term action by both public and private entities.

Working Paper No. 1, which should be read in tandem with the Harman paper, was prepared in a project directed by Donald McCune, Director of the Division of Adult, Alternative, and Continuation Education for the State of California. Dr. McCune also is a member of the board of the American Association of Adult and Continuing Education, which served as fiscal agent for the project. The day-to-day staff work was carried out largely by Judith Alamprese of Cosmos Corporation in Washington, D.C., who joined McCune in writing his final report.

The McCune paper is based in large part on extensive interviews conducted with a sampling of local literacy programs around the country, and with the main national organizations that give the local programs leadership, coordination, and technical assistance. The paper assesses program patterns and needs, discusses the funding requirements for expansion of service, and explores the implications of the research findings for the field as a whole. And it provides numerous recommendations for public and private-sector action.

The Harman and McCune papers are, to a degree, separate views of the same universe. But Paper No. 1 focuses primarily on the short-term needs of the adult literacy field, taking that as a practical necessity in light of the already-launched national awareness campaign.

There is great consistency in the problems and needs identified in the two papers, although each was developed independently of the other. And there is a similar consistency in the main recommendations. The most important messages to emerge are these: It will take major new funding (in the billions of dollars a year), much added leadership, and new legislative action to turn the illiteracy problem around. Moreover, while the greater involvement and leadership of business is needed urgently--and is in the best interest of the business community itself--this increased role cannot be viewed as a substitute for the stronger funding and leadership role that is needed from federal and state governments.

In presenting the Harman and McCune papers, BCEL hopes to contribute to the present national debate on how best to address the growing problem of adult illiteracy. And we seek to help advance a more realistic understanding of the challenges facing public and private-sector organizations alike.

Given our basic organizational purpose, we would of course be remiss not to include some concrete guide to action for those in the business community seeking to help combat adult illiteracy. The following six suggestions are given in some form by both Drs. Harman and McCune. And, as it turns out, they confirm what BCEL itself has been urging for the past year. Businesses large and small can make a substantial difference by:

- Giving grants and in-kind assistance to local adult literacy programs which operate in communities where the companies have headquarters or branches. The focus should be on multi-year grants which assure ongoing operational support.

- Giving grants and in-kind assistance to the national offices of such groups as Laubach Literacy, Literacy Volunteers of America, the Association for Community Based Education, the Coalition for Literacy, and others important to the literacy field. (And BCEL itself is in need of funding support.)

- Making grants for the development of new literacy approaches and delivery systems--e.g. the use of computers and television for extending outreach.

- Initiating, joining, and/or providing financial or in-kind help to local and state literacy planning councils and agencies.

- Providing funds to support centers of adult literacy research, data gathering, and information dissemination.

- Pressing for much higher levels of public support for literacy programs and planning at the state and federal levels.

Finally, we should note that the Harman and McCune papers touch only in passing on the role that general foundations could play in this field. Yet these organizations also could be a major ally in the battle against illiteracy. They are able to respond to social problems with a flexibility and speed that is unique. We hope this set of papers will be helpful to them in considering whether and how they might place the adult literacy challenge among their priorities.

Gail Spangenberg
Vice President, Programs
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President
BCEL

Author's Preface

The Business Council for Effective Literacy has played a key role in facilitating the current national literacy awareness campaign. While providing major assistance to this effort, it has also been keenly aware of the need to address the ability of the literacy delivery system to properly and adequately cope with the increased demand for its services which will constitute the hoped-for result of the campaign. This paper was commissioned by BCEL expressly to identify such needs. It complements an earlier paper written by Donald McCune and Judith Alamprese that dealt, in the main, with more immediate systemic requirements. The paper begins with an examination of literacy and illiteracy intended to define the parameters of this vitally important, but highly complex social and educational issue. It continues with an overview assessment of the currently available "system" of instruction and then explores the more glaring gaps that will have to be addressed in order to increase efficiency and improve the system's efficacy.

During the course of preparing this paper I have benefited from Gail Spangenberg's advice, experience, and comments. In her current position as Vice President of BCEL, as well as during her earlier assignments for both the Ford and Carnegie Foundations, she has amassed a wealth of knowledge regarding literacy and a sensitive awareness of the central issues influencing the provision of literacy instruction. Her insights have been invaluable. Several people read and commented on the first draft of the paper. Many of their suggestions have been incorporated into the final version, importantly contributing to it. I am indebted to Paul Delker, Donald McCune, Judith Alamprese, Diane Vines, Dianne Kangisser, Violet Malone, Carman St. John Hunter, Gary Eyre, and Chris Zachariadis for having taken the time and devoting their energies to this task. While gratefully acknowledging their assistance, I retain full responsibility for the paper's contents.

David Harman

A. FUNCTIONAL LITERACY DEFINED AND ASSESSED

The people of the U.S. enjoy one of the highest levels of educational attainment in the world: an average of 12.6 years of schooling. Educational opportunities and institutions abound, and access to them is relatively easy. Nonetheless, as many as 72 million adult Americans lack adequate basic skills and consequently are barred from full participation in society's economic and social processes. Of this number, 27 million are considered to be functionally illiterate, while the other 45 million are only marginally proficient in their basic skills. Schools are not teaching the basics to all their students; indeed, the U.S. Department of Education estimates that 1 million functional illiterates are being "graduated" annually. The annual influx of approximately 1.3 million immigrants and refugees lacking basic skills in English serves to further swell the number of adults deficient in fundamental education.(1)

Clearly, the existence of so many functional illiterates constitutes an untenable situation, detrimental to the nation as a whole and to those individuals lacking the necessary skills. The cost to the country and to these individuals in terms of unrealized lifetime earnings alone, as estimated by the Senate Select Committee on Equal Opportunity in 1972, was then a staggering $237 billion. Those affected include the unemployed, among whom 36 percent(2) have been found to be functionally illiterate; those employed in unskilled jobs, 30 percent; those in semiskilled occupations, 29 percent; and those engaged in professional and managerial capacities, among whom 11 percent lack competency. Functional illiteracy, it appears, is endemic.

Defining the Problem

Any discussion of functional illiteracy must be based on an accepted notion of what constitutes literacy in the U.S. today. The lack of definition can result in erroneous conclusions which then will serve as the basis of programs that are incapable of dealing with the issues and taking proper corrective measures.

Illiteracy is simply the inability to read and write. Illiterates are unable to recognize letters, associate them with the sounds they represent, and combine them into words, sentences, and texts. In professional terminology, illiterates lack both decoding and encoding abilities. The term "functional illiteracy" is far more complex. People who are functionally illiterate usually are able to decode and have mastered basic letter-sound recognition skills. Their illiteracy is a function of an inability to read texts written at certain levels and extract meaning from them. Functional literacy is a measure of comprehension, not of technical reading ability. Psychologists make a further distinction by separating the cognitive tasks associated with understanding a text from those associated with extracting meaning from it. The two sets of tasks are very different, and an awareness of the difference is highly relevant to our understanding of functional illiteracy.(3)

In popular parlance, the term "illiteracy" has assumed a more generalized connotation of knowledge. Reference is often made to different forms of "literacy," such as in science, computers, and consumer economics, implying a knowledge and understanding of diverse areas. People lacking specific abilities in these and other areas are thought to be "illiterate" or "functionally illiterate" even when such designations have nothing to do with reading and writing. Even at a more rudimentary level, literacy and illiteracy have long been assumed to encompass a range of basic skills that have variously included correct speech, spelling, arithmetic, and certain essential knowledge about topics and fields that are thought to be of central importance. Indeed, the terms "literacy" and "basic skills" are often used interchangeably.

Measuring Literacy

In a modern, measurement-prone society, one's reading ability is often defined by designating a grade level, with the grades in this case being borrowed from school structure. People are noted as reading at a fifth, eighth, tenth, or twelfth-grade level, and materials are written at different grade levels of difficulty. Grade levels in turn are determined through a series of standardized tests that are administered to representative samples of schoolgoers in order to establish the mean level of ability of those being tested by age and

grade. By definition, a mean indicates that the scores attained are distributed along a normal curve such that the norm performs around the mean, with "tails" in the directions of superior performance and less than average ability. Beyond the early years of schooling, during which such tests are focused on the mechanics of reading--sound-letter associations, connection of syllables, formation of words and sentences--reading tests are used to identify comprehension ability. This is achieved by presenting those being examined with texts conveying meaning and then ascertaining the extent to which the content has been understood through a series of questions. Finally, the mean level of attainment is determined to be the "grade level" appropriate for the particular group being tested.

Readability formulas derive from the grade-level determinations and are applied to texts in order to assess their degree of difficulty. Hence, standardized testing is used to determine an individual's level of reading ability, and readability formulas are employed to establish the reading levels required to cope with specific materials. Stipulated reading levels thus are relative determinations that derive from the application of various measurement tools either to individuals or to materials.(4)

Concepts of Literacy

Several important observations can be made regarding both the nature of literacy and the tools used to express its prevalence. First, reading cannot be divorced from content; it is inexorably wedded to the substance being conveyed by the written materials. Second, content in turn requires a knowledge of facts, events, experiences, and vocabulary in order to be intelligible. Simply decoding a text may be considered an act of reading, but unless the reader is familiar with the vocabulary of the text and has the background knowledge and experience that imbue it with meaning, the mechanical deciphering of words will be meaningless. Third, our notions of literacy and illiteracy among adults are viewed and expressed through tools that were developed to assess reading among children and adolescents. This is clearly an incongruity. The type of content likely to appear in school curricula and tests is not

necessarily equivalent to the substance of materials intended for adult consumption. Both topics and vocabularies may vary substantially. Although readability formulas make it possible to identify the reading level of any text in the form of a grade equivalence, such an expression is likely to be artificial because it tends to focus on vocabulary, word usage, and sentence structure rather than content or context. Fourth, our grasp of the problem of adult functional illiteracy often derives from standards measured while people are still in the adolescent stage of growth, with an implicit assumption that the years following high school graduation or college completion are static in terms of the development of reading abilities.

Reading skills typically are assessed during transition or school completion points, rarely during the course of adulthood. It is assumed that an individual found to read at, say, an eighth-grade level upon graduation will retain that level throughout his or her adult years. Similarly, a person found to be reading at a twelfth-grade level of ability is assumed and expected to remain at that level of competence. The first individual will, in accordance with some of the definitions of functional literacy, be labeled a functional illiterate; the second will be considered functionally competent in reading. In both cases, allowances rarely are made for changes subsequent to graduation that can result in either increases or decreases of ability.

Attempts at Definition

This discussion is intended to underscore the difficulties involved in defining functional illiteracy and establishing its extent. The central issue that arises concerns the concept of functional literacy. Clearly, it is not an absolute designation; rather, it is a relative determination linked to particular contextual situations and deriving from them its notions of content and vocabulary. In a country as vast as the U.S., a wide range of communities and environments exist, each with its own particular requirements and attributes; thus, it is entirely possible that several definitions of functional literacy may be warranted.

Over a decade ago, the U.S. Office of Education funded a study conducted by the

University of Texas that sought to elaborate a minimal national definition. In this Adult Performance Level (APL) study, the researchers selected 65 specific objectives for adult functioning, identified texts that represented them, and established three levels within each, representing different levels of complexity and competence. APL's most significant contribution was its departure from standard grade-level equivalencies and its recognition that the reading tasks required of adults relate to adult functions and functioning, making it necessary to define literacy on the basis of their analysis.

Emanating from an earlier (1971) conference on this issue, this new concept has placed the definitional dilemma on a more appropriate plane. However, insofar as the specific measures are concerned, the following comment by Sylvia Scribner and Michael Cole should be borne in mind: "While attempts to arrive at some overall measures of literacy competencies may be useful for certain comparative purposes, the representation of literacy as a fixed inventory of skills that can be assessed outside of their contexts of application has little utility for educational policies." (1981, p. 25, see Ref. 3)

The Importance of Context

The APL effort to determine literacy minima in itself raises a question: What should be a base level of literacy ability in the U.S. today? Beyond a level of technical ability developed to a point at which it can be applied to any type of written material, can a definition have national validity?

Positions on this issue are unclear. Maximalists suggest that a twelfth-grade competence is essential; minimalists recommend that an eighth-grade equivalency should be set as the threshold. Both approaches are incomplete, since neither conveys a sense of content or vocabulary. To illustrate, an individual reading at a tenth or twelfth-grade level of competence would have little difficulty sounding out the words in a complex legal treatise. However, the extent to which the substance may be understood and meaning gleaned from the text is contingent on factors left undefined by the emphasis on reading level. Knowledge of legal jargon and of the background issues as well as the ability

to follow the logic of argumentation become critical factors. Thus, a viable definition of literacy that can also be translated into practicalities of curricula will have to deal with substances and vocabularies in a distinct fashion. Accordingly, several parallel notions of functional literacy may be necessary rather than a single national definition.

Such definitions can be of value only if they are contextual, that is, if they reflect both the realities and the perceptions of individuals and groups within society, each in accordance with specific sets of conditions and requirements. An appropriate approach to the definition of functional literacy can be stated thus:

> The possession of skills perceived as necessary by particular persons and groups to fulfill their own self-determined objectives as family and community members, citizens, consumers, job-holders, and members of social, religious, or other associations of their choosing. This includes the ability to obtain information they want and to use that information for their own and others' well-being; the ability to read and write adequately to satisfy the requirements they set for themselves as being important for their own lives; the ability to deal positively with demands made on them by society; and the ability to solve the problems they face in their daily lives. (Hunter and Harman, 1979, pp. 7-8, see Ref. 3)

This approach emphasizes contexts and strongly differentiates between self-derived definitions and imposed ones. People, it is suggested, will be motivated to attain the levels of literacy set and required by their contexts of affiliation. In all probability, they will be less inclined to accept and achieve standards of literacy defined by others and not viewed as germane to their lives and concerns.

An important philosophical premise of contemporary American life is mobility. People move from one region to another, change jobs, and extend their affiliations. Illiteracy has often been identified at such points of transition. Skills and abilities that were adequate in one situation prove inadequate in the next. It should be recognized that among the various dislocations they cause, most transitions pose new contexts and vocabularies,

in effect, new definitions of functional literacy. Just as individuals go through a process of acculturation in other aspects of their new situations, they must acculturate in regard to literacy as well.

Required Reading and Desired Reading

Another source of confusion about functional literacy relates to the differences between required and desired reading. Current notions of functional literacy nearly always refer to required reading, essentially the written material viewed as being necessary for competent performance. Very often these criteria are dictated by job-related requirements. There may be specific manuals, charts, texts, and instructions that must be read on the job. The approach taken in the military environment, for example, has been to identify written materials required for specific occupations and then to determine the necessary levels of literacy by applying a readability formula to them. Not having the requisite reading abilities, it is held, compromises job performance.

Desired reading constitutes a far more subjective designation. It would be laudable if everyone could read the New York Times, Emerson, Robert Frost, and the President's State of the Union message. Many, perhaps, can and choose not to; others possibly cannot and have no particular desire to do so; others do not know or think about reading in the sense of self-fulfillment, edification, or recreation. Alternative means for both information-gathering and leisure are abundant, especially in an age of electronic media. How might this aspect of reading be definitionally expressed and the necessary skills imparted? These are important aspects of functional literacy but can only be stipulated as desired goals. The ultimate decisions about whether to read and what to read are personal.

Dealing With The Problem

Thus, it is extremely difficult to determine the extent of functional illiteracy. In the few instances in which literacy abilities have been assessed

within a specific context, it has been found that many of those tested lacked the necessary contextually-defined abilities and required remedial instruction. This has been the case in military and corporate settings in which certain reading abilities have been deemed essential for work.

The high figures normally cited represent extrapolations from school completion data and assessments of reading comprehension through standardized achievement tests. The APL study sought to identify the extent of illiteracy by applying the APL levels to samples of adults and consequently may be somewhat more accurate, with the caveat that specific contexts and the differences between environments in terms of content and vocabulary cannot be accounted for in a national study of that nature.

Conceived in this manner, illiteracy and literacy are viewed as virtually permanent phenomena. Indeed, illiteracy is not a condition that can be "stamped out" by a set number of years of schooling or a one-time blitz campaign. New situations and new conditions will always pose new literacy demands, making it necessary to modify and add to existing abilities continuously. In much the same way that employers provide further education and training to expand and update other areas of knowledge and skills, attention will have to be focused on reading needs.

Those in greatest jeopardy are people whose reading abilities are so poor and underdeveloped as to make it difficult for them to advance to higher levels. Variously identified as consisting of approximately 27 million adults, this group largely functions in environments in which literacy is not a functional requirement. For the most part, people in this category are early dropouts from schools, caught in multifaceted cycles of deprivation, disconnection, and disadvantage. Not surprisingly, there are high correlations between very low levels of literacy, ethnic group membership, unemployment, low income, and delinquency. This is by no means a description of all members of that segment of society but rather a statement of the fact that indices of disadvantage and deprivation tend to cluster in a manner that makes it likely that individuals with certain social backgrounds will also be illiterate.

It often is pointed out that those most afflicted by illiteracy are also most difficult to reach and teach. This also provides an indication that many people lack the ties and connections that provide contexts and environments that imbue literacy with meaning, establish it as a requirement, and present mechanisms and supports for its development.

If literacy programs are to take root among those most in need of assistance, attention will have to be paid first to their overall environments and conditions of life. Social policy cannot be segmented; most people do not believe that increasing their reading abilities will help solve other issues as an independent variable. Literacy, then, can be introduced effectively as one component in a broader, more encompassing social action program that succeeds, among its other tasks, in inculcating a literacy consciousness into environments where it is currently lacking. If literacy requirements do not become embedded in contexts and environments as though they are expected, desired, and rewarded competencies, it is unlikely that future attempts to teach reading and writing will fare any better than they have in the past.

Among nonreaders there is a group, estimated by some to constitute as much as 10 percent of the population, who, while in school, were diagnosed as having learning difficulties in reading. Our current state of knowledge about these difficulties, the way in which they may be overcome, and the extent to which they are corrected over time is limited. However, it is possible that some adult illiterates are people who have had difficulty in acquiring reading skills and have not succeeded in making strides toward becoming effective readers. More research should be conducted on this issue. During the course of the past 15 years, a number of surveys and studies have independently identified the large group of functionally illiterate American adults that has become a source of contemporary concern. Clearly, illiteracy in its various manifestations is untenable. Clearly, the situation requires and demands rectification. But the basis of any attempt to grapple with illiteracy must be a clear, accurate, and thorough understanding of its nature, parameters, sources, and attributes. Anything less will result in programs that cannot effectively alleviate functional illiteracy.

The Social And Economic Costs Of Illiteracy

Researchers have made several attempts to assess the costs of illiteracy in both social and financial terms. However, it is extremely difficult if not impossible to do this with any measure of accuracy. Illiterate people have difficulty gaining access to the labor market and experience hardship in improving their job status once they are employed. It is not, however, the case that all illiterates or functional illiterates are unemployed or employed in low-level positions. Many, in fact, are gainfully working, often in positions in which literacy is not required and illiteracy does not inhibit promotion.

To a large extent, participation in the labor market is a function of supply and demand, not of the availability of literate candidates for employment. When it becomes necessary to engage employees who cannot read, employers have found it worthwhile to correct the situation by offering literacy programs. They have not limited hiring only to those able to read well enough. The military is an example of such an employment entity. If functional illiteracy were to be wiped out, it is unlikely that any but very marginal effects would occur in the labor market. Economic and not educational determinants influence the shape of the market and the directions of employee flow. Unemployment has always existed at some level, always as a function of economic winds, not of the continued incidence of illiteracy. It is, then, virtually impossible to establish a cost of illiteracy insofar as participation in the labor market is concerned.

On an individual level, the picture is radically altered. One's employment prospects are greatly enhanced by increased levels of educational achievement. The ability to compete effectively in the labor market is to a large extent contingent on an individual's background, including education and training. The ability of those with low levels of educational accomplishment, illiteracy, or functional illiteracy to attain jobs is therefore severely compromised. It is for this reason that their proportion among the unemployed is so dramatically high. Improved literacy abilities cannot affect the shape of the labor market but can have a significant impact on the fortunes of individuals. The issue, then, is more social than economic.

Evaluating social phenomena in monetary terms is an exercise in futility. It requires making so many assumptions that any figures derived will be too tenuous to be of value. For instance, let us assume that all those currently receiving welfare payments were enabled, in consequence of improved literacy skills, to obtain jobs. The argument might be put forth that welfare costs would be reduced accordingly and produce increased tax income for the state. The flaw in this proposition is that literacy does not produce jobs; that is achieved through economic activity. Whereas some currently unemployed people might improve their conditions, others would replace them on the welfare or unemployment rolls. The ability to read might lead to other desired consequences such as improved health and nutrition, but here too there is evidence to suggest that economic rather than educational factors weigh more heavily in the determination of conditions.

Poverty, disadvantage, low self-esteem, inability to compete successfully in a competitive society, and the impact of disadvantage on children are all nonquantifiable social costs. Illiteracy is clearly one of the attributes of these situations and its elimination would contribute to their alleviation. Literacy on its own, however, cannot solve these problems.

Illiteracy also may have hidden costs that are equally difficult to establish with any degree of precision. An illiterate employee is likely to malfunction in a position that requires reading. "Human error," often cited as a cause of events with disastrous consequences, may at times occur because instructions were not read, labels were misunderstood, or people experienced difficulties in transposing what they read to real conditions. Efficiency may be curtailed for similar reasons. Although logic dictates that such eventualities are commonplace, it would be impossible to identify all the manifestations or attach a price tag to them, although the costs must be high.

Another cost of illiteracy is implicit in the need to provide remedial instruction. In theory, schools are supposed to graduate literates, and most Americans attend school long enough for this aspect of instruction to be effective. But in practice this too often is not the case. The cost of providing additional compensatory instruction beyond school-attendance years

clearly represents an additional financial outlay. It is, however, unclear whether this cost can be avoided. It is quite likely that for some people reading instruction has occurred at the wrong point in life for it to be effective. The issue of individualizing instruction and pacing the acquisition of reading skills is highly complex, and its execution, assuming that a theoretical approach could be worked out, would be costly.

Illiteracy clearly imposes social and economic costs on society. The nature of the phenomenon and the fact that both literacy and illiteracy interact with a host of other social and economic factors make it necessary and more meaningful to estimate these costs on a qualitative rather than a quantitative basis.

Finally, it must be reiterated that these types of illiteracy do not merely constitute an inadequacy in reading ability. Notions of literacy are far broader, encompassing both additional skills and knowledge factors. In dealing with the issues and the dilemmas posed by illiteracy, these factors cannot be ignored either in terms of definition or in the design of corrective measures.

Future Needs

The continued incidence of illiteracy and functional illiteracy is inimical to the core beliefs and aspirations of a free, democratic, and meritorious society constantly striving to advance the quality of its environment and the lives of its citizens. It is for this reason above all that the goal of universal literacy must be pursued assiduously. It is for this reason that society must undertake a continuous reevaluation of its educational needs and requirements, constantly updating its definitions of effective literacy. Today's realities and needs are relevant and pertinent now; tomorrow, new conditions and new realities will pose new challenges.

Summary

Despite high average rates of educational attainment, functional illiteracy

remains a central problem in the U.S., with over 70 million people above the age of 16 being either functionally illiterate (27 million) or only marginally proficient in the use of basic skills (45 million). This situation is harmful both to those individuals involved and to the nation as a whole. A large segment of society is barred from full participation in all of society's processes and denied full and equal access to many of its structures and much of its promise. The elimination of illiteracy in all of its manifestations is, then, a critical objective that should be made a very high social policy priority.

Literacy is a far more complex skill than it is often thought to be. Although it entails technical reading ability, its proper definition must also take cognizance of language, culture, environment, and the uses to which literacy is to be put. Literacy is a contextual ability and cannot be defined in absolute terms. This creates obvious difficulty in a country as large and diverse as the United States. Moreover, the eradication of illiteracy, particularly among the more disadvantaged segments of the population amongst whom illiteracy tends to be greater, requires an integrated set of social policies that would also address some of the underlying causes of illiteracy.

While the costs of illiteracy are probably high, they are difficult to quantify with any measure of accuracy. Clearly, being illiterate imposes a severe cost on individuals in terms of their ability to fully integrate into the labor force and advance in their jobs once employed. Enabling those with nonfunctional or only marginally-developed basic skills to improve themselves is vitally important.

B. TEACHING THE FUNCTIONALLY ILLITERATE: A Map of Programs and Providers

Over the past 80 years there have been numerous programs aimed at eradicating illiteracy and advancing the level of functional literacy. At the present time, there are a variety of activities around the country for these purposes. The manner in which these efforts function, the extent to which they are effective, and the degree to which they can form the base of an expanded undertaking will be explored in this section.

Federal Programs

The federal government is the largest provider of programs in basic skills for adults. Through the Adult Education Act (Public Law 91-230), first enacted in 1964 and amended several times, monies are made available to the states for the purpose of conducting Adult Basic Education (ABE), high school equivalency, and English-as-a-Second-Language (ESL) courses. ABE courses are intended for people with less than a complete primary school education, essentially those with either no literacy skills or a very low level of ability. High-school-equivalency courses are aimed at those seeking to complete secondary education and obtain appropriate certification, known as the GED (General Educational Development) certificate. ESL courses are made available to new immigrants who must master English to make headway in the U.S. These programs are viewed as simultaneously providing language skills and some acculturation into the new society.

During the current fiscal year, federal allocations to all these activities will total $100 million, with an estimated additional $200 million made available by a combination of state and local resources. Government sources currently place the total enrollment in all three components of the program at 2.6 million people, of whom 25 percent are in GED courses. Fully a half participate in English basic skills classes, and the remainder attend ESL programs. When queried about their reasons for participating, nearly half (46.2 percent) indicated that they were seeking the GED certificate.

In a recent survey of participants, it was found that a third had previously completed between 7 and 9 years of schooling, a third had attended school for between 10 and 12 years, and a third were ESL students of varying educational backgrounds. Another important finding relates to the age distribution of participants, the overwhelming majority of whom were under 34 years of age.(5)

The largest national effort, then, provides instruction to a little over 1.2 million people in the lower categories of literacy and basic skills ability and a little over 750,000 people at somewhat higher levels who wish to obtain high school credentials, presumably to secure employment. Altogether, the programs conducted under the aegis of the national adult education activity serve between 3 and 4 percent of those considered functionally illiterate. Most programs report that they are unable to cope with demand and that there are waiting lists of candidates who have been accepted for participation as well as people who are being turned away. Unfortunately, there are no figures on the numbers of those seeking admission for whom there is insufficient space; thus, the extent of demand for such courses cannot be estimated.

In addition to programs conducted under the umbrella of the Adult Education Act and its state and local counterparts, the federal government provides for instruction through other frameworks: the military through efforts funded in the national defense budget and administered by the various service branches, programs for prison inmates in both federal and state institutions, and programs connected with job training for unemployed youth. Each program is intended for a specific target audience and is undertaken within a context where the functional illiteracy rate has been found to be inordinately high. The all-volunteer army has attracted many whose alternative employment prospects are poor precisely because of deficient educational backgrounds. Moreover, job training for disadvantaged youths is often aimed at those with low levels of educational attainment and achievement, and surveys of prison inmates reveal that their rates of literacy are significantly lower than in the general population. Approximately 300,000 people participate each year in literacy activities conducted within these frameworks.

Libraries

Many of America's 15,000 public libraries view illiteracy as a matter that warrants direct intervention. Guided by their national association, the American Library Association (ALA), they have made facilities available for programs, initiated instruction on their own, and entered into arrangements with other providers of literacy instruction. Just how many participate in such activities is not known, but their numbers are unfortunately limited.(6)

Laubach Literacy Action and Literacy Volunteers of America

Among the providers most actively involved with libraries and others in the system are two national, independent voluntary organizations, Laubach Literacy Action and Literacy Volunteers of America (LVA). Laubach, a domestic outgrowth of pioneering work begun in 1929 by Frank Laubach in the less-developed countries, functions through over 500 local councils around the country and has aggregated 50,000 volunteer tutors who work with an estimated 60,000 adult students, mostly in small groups or individual tutorials. A central national office in Syracuse, New York, provides local affiliates with instructional materials published by Laubach's New Readers Press as well as certification programs for new volunteer tutors. The annual budget of approximately $1 million is derived largely from sales of materials and to a lesser extent from contributions. Local efforts are self-funded. LVA, a newer organization formed in 1967 and also headquartered in Syracuse, has a national budget of approximately $500,000, functions through some 200 affiliates, and utilizes approximately 15,000 tutors to provide instructional services to 21,000 adult illiterates. Local affiliates organize and manage themselves and do their own fund-raising. They receive technical assistance and instructional materials from the central office and the state-level organizations with which they are associated.

Volunteers from both organizations function either independently or in conjunction with such entities as ABE, libraries, and correctional institutions. The overwhelming majority of volunteers in both organizations are white females

Facilities

Some attention has been devoted in the literature to the facilities for instruction. Although there are some specialized facilities for the education of adults, particularly in the ABE and GED programs, most programs are conducted in borrowed space. Schools make rooms available after regular school hours, companies find space in their facilities, community colleges use regular classroom facilities, churches use local halls, and sometimes instruction takes place in the homes of the students or their tutors. With one caveat, though, the space issue appears to be a secondary one: Adult learners should not be made to use classrooms furnished for young children. This situation creates an ambiance that causes students to see themselves in an inappropriate light. In general, any space that is relatively accessible to students and offers a quiet spot where instruction can take place without undue interruptions can serve for teaching purposes.

Costs

The provision of education is costly. All the program elements that have been outlined here have cost factors, requiring that adequate budgets be made available. Current provision is virtually unable to identify its overall costs, let alone its cost components. It is not unreasonable to estimate the current outlay on all aspects of adult literacy instruction at around $900 million yearly. This figure includes federal appropriations, state and local outlays, those of volunteer agencies, and those of discrete programs in industry, unions, libraries, employment training programs for disadvantaged youth, correctional institutions, community colleges, and CBOs.

At the most general level this means that approximately $90 to $120 is expended for each participant, depending on the total numbers in courses. This figure, however, is misleading because there are programs that spend considerably more per participant and others that spend less (e.g., programs in the military spend significiantly more per person than most volunteer-based activities). The question that must be considered is what an adequate national outlay would be

(possibly 90 percent) between the ages of 40 and 70 (over 70 percent), mostly graduates of high schools or colleges. Most are provided a modicum of training, typically brief, and receive a form of certification before engaging in teaching. Most tutors serve in an instructional capacity, but some provide support services such as driving students, assisting "professional" teachers, and offering administrative help. The 81,000 students served by Laubach and LVA constitute a tiny fraction of the total population of functional illiterates. Because some of these students are actually being taught through other programs, there is some double counting; thus both the absolute and the proportionate figures are somewhat lower.(7)

Community Development Agencies, Churches, and Community Colleges

Community development activities in which locally-inspired and organized groups and agencies are established for the purpose of grappling with issues of local concern have long been in existence in America. In recent years, many such community efforts have been focused on educational issues, among them, of course, literacy. Accurate information regarding these activities is difficult to ascertain because of their very localized nature. The Association for Community Based Education (ACBE) has sought to organize community groups and is able through its membership to provide some very partial data. Among ACBE members, it is estimated that 105,000 people are being served through active community efforts, possibly as many as a third to a half of these in literacy classes. Community-based organizations (CBOs) have been able to reach groups of participants usually thought of as difficult to reach, including those with the lowest literacy abilities. Some of the literacy classes are held in conjunction with other efforts (e.g., ABE, Laubach, or LVA), and thus there is some double counting. Poor data from CBOs makes it difficult to establish the full extent of their outreach. But in a recent survey, ACBE identified some 3,500 local non-member CBOs and estimates that they and ACBE members are collectively providing basic skills services to 600-700,000 adults, possibly as much as 1 percent of the total pool of illiterate adults.(8)

Churches and church-connected groups play a small role in literacy provision. Historically, Protestant churches have played a key role in the inculcation of a mass literacy consciousness and spearheaded many literacy campaigns in third world countries. In the U.S., however, the level of activity tends to be far more limited. Some of the effort is national in scope--notably that undertaken by the Lutheran Church Women and the Southern Baptist Convention--but most is conducted in local churches that do not research or advertise their activities. Consequently, neither program details nor participation data are known.

Another active provider of literacy instruction is the community college. Across the country, community colleges have noted low literacy levels among an exceptionally large segment of their incoming students and have been providing remedial courses. As many as half of entering students may have severe problems in basic skills and require remediation. Classes are typically conducted within the colleges, and students are assigned to them according to need. Although precise numbers have not been aggregated, given the large enrollment and high proportion of those in need, this delivery vehicle for literacy instruction may be reaching several million people annually, possibly as much as 3 to 4 percent of the entire target population. Coupled with four-year colleges, many of which also provide remedial reading courses for their incoming freshmen, institutions of higher education are clearly a central factor in literacy teaching.(9)

Business and Labor

Two other important entities are engaged in literacy work. There are over 4.2 million businesses and corporations in this country, constituting our major source of employment. Of these, 210,000 employ more than 500 people each and conduct aggressive and broad employee education and training programs. At present, it is estimated that a total of $40 to $50 billion is expended by corporations annually on the direct costs of these efforts. A recent survey found that just under a quarter of all these corporations included basic skills instruction in their efforts. Much of the instruction is conducted in-house by paid instructors; a portion is contracted to other entities such as community colleges, ABE, LVA, and Laubach. In most cases, participants are paid their

regular salaries during the course of study. Exact participation figures are not available, but as many as 350,000 to 600,000 people attend corporate-sponsored basic skills programs, accounting for between 0.5 and 1 percent of the total group in the nation.(10)

The second entity is labor unions. Long aware of the importance of literacy and the existence of illiteracy among their members, labor unions have sponsored an array of basic skills programs using monies from education funds that accumulate largely through negotiated contributions from employers and, to a lesser degree, from membership dues. Individual locals, central union efforts, and the education department of the AFL-CIO have all participated in such programs. Unfortunately, fragmentary evidence indicates that although these efforts are supported and encouraged, they are not very widespread. Some of the activities are conducted in conjunction with other providers, often through union educational programs conducted in-house. As in other activities, participation figures are unknown; estimates range from 20,000 to 100,000.

Public Schools

In surveying literacy provision, mention must be made of the efforts of some public school systems. Although schools primarily seek to assure the literacy of their regular students and thus avoid the generation of future adult functional illiteracy, they are keenly aware of their failure rate. They are equally aware of the fact that children of illiterate or functionally illiterate parents are more likely to emerge illiterate from the formal school system. A number of systems have sought to correct this situation by offering literacy courses to the parents of their students. Such activities are most often conducted in conjunction with ABE through the relatively simple mechanism of making space available after school hours and encouraging the participation of parents, but some schools have acted independently to organize courses. Once again, the extent of such activity remains unknown except insofar as it is part of the ABE provision network.

Interpreting the Figures

The various activities outlined above constitute for all intents and purposes the adult literacy instructional "system" as it exists today. Assuming a doubling or tripling of program enrollments, the combined future capacity of the system's existing components is probably between 15 and 20 percent of the total pool of 72 million each year, or 10-15 million adults. These figures, however, must be read with extreme caution. They do not mean, for example, that the participants "graduate" and are no longer illiterate. They do not mean that those registered in programs complete them, nor should they be construed to indicate that existing programs are effective in imparting literacy skills. They certainly cannot be read as a suggestion that within 10 to 12 years the issue will be solved. What they do mean is that through one existing mechanism or another, as many as 10-15 million people could be regularly receiving instruction. It is important to note that proportionately fewer of the 27 million functional illiterates (than of the 45 million marginally proficient) can avail themselves of the programs currently in existence. The way in which these mechanisms are structured provides a greater opportunity to those with the highest levels of prior attainment, leaving those with the greatest disadvantage and need with the least service. Even so, there is no indication in these figures as to the nature of either the instruction itself or its efficacy.

The several programs do not in any way cohere into a system of basic education for adults. Rather, they should be viewed as representing learning opportunities for those who live within the contexts in which literacy instruction is offered, those reached by the very limited outreach efforts, or those who are sufficiently motivated to find programs on their own. Two phenomena that regularly occur are multiple and repeat enrollments. People can simultaneously take part in more than one program or, more likely, be double-counted by being in a program with multiple sponsorship. An individual enrolled in a course conducted through a correctional institution by ABE using volunteer tutors may be counted three times, for instance. People may repeatedly enroll in a program over the course of several years, conveying the impression that a series of different individuals have been served. Since there is no mechanism for maintaining records, there is almost no good information with which to assess the flow of participants.

Participation

Literacy programs are known to have a unique pattern of participation that is generally thought to restrict achievement. Participation is very often sporadic so that people are apt to attend several classes and then skip several others. In any educational activity that is structured in a systematic and sequential fashion, this pattern is contrary to effective learning and proper instruction. Dropout rates of 50 percent and over are the rule rather than the exception. The investigative literature on literacy programs worldwide reveals that these trends are virtually universal. In this country, only a few experimental activities and those undertaken under the aegis of ACBE have reported participation and graduation figures significantly better than those commonly assumed.

In many programs, the result of this situation is that people begin instruction, lapse in their attendance, drop out, and are then replaced by others who tend to follow similar patterns. Thus, it is quite common that a program reporting an annual participation of, say, 100 people actually will have had 300 participants, each remaining on the rolls for a portion of the course. Lacking any systemic definition, record-keeping is such that past instructional "episodes" are rarely monitored or assumed in the design of programs. Individuals can roam around the literacy instruction network over long periods of time, often with only marginal learning benefits.

Curricula and Instructional Approaches

In several other important respects, currently-available instructional frameworks lack systemic cohesion, especially in regard to curricula and instructional approaches. The heart of any educational endeavor is the curriculum and the manner in which it is taught. It has long been known that inappropriate curricula and inadequate teaching approaches cannot motivate the desired learning. The little research available on the teaching of adults in general and adult functional illiterates in particular clearly indicates that curricula are often ill-conceived and that instructional methods are too often appropriated from those developed for in-school use. Literacy work is especially

susceptible to this phenomenon. On the assumption that nonreading adults are similar to nonreading children from an intellectual and educational vantage point, there is a widespread tendency to copy curricula and teaching methods from those which have been perfected for use in primary and secondary schools.

There has been no central effort to define curricula for adult functional illiterates or to develop instructional approaches directly aimed at adult learners. One notable exception has been the APL effort undertaken by the University of Texas. Despite some criticisms of this activity, APL has clarified the need for an adult-oriented approach to developing curricula with the subject matter based on the types of reading tasks most likely to occur in the lives of adults. Thus as a first step in curriculum development, the APL study has made an important contribution.

Curriculum development, however, should be an ongoing task, constantly changing in response to new conditions and new knowledge. Schools and their educational programs are served in this manner by a large and active network of research and development institutions. Social and behavioral science research is constantly being formulated in curricular and instructional forms. The fields of adult education and adult literacy are not served in like fashion. There is too little investigative work being carried out. There are too few funds being devoted to these aspects of education, and consequently too few individuals undertaking careers in such research. The instructional networks for functional literacy and basic skills have no system-wide mechanism for research and development and hence no mechanisms for improving practice other than the anecdotal and impressionistic modes that have come to typify the field.

Professionalism

Closely related to this central fault in the functional literacy endeavor is the lack of professionalism in its instructional corps. While short "certification" courses are offered, largely by ABE and the voluntary sector, these efforts are limited in scope and intensity. Yet the teaching of adults is no less an art and profession than the instruction of children. Although teacher

training in general has not developed into a finely honed and uniformly effective practice, teacher training for adult education remains in an especially unsatisfactory and embryonic state. Oversimplification and generalization often substitute for in-depth analysis and understanding of the unique attributes and requirements of adult learners. The available literature is underdeveloped and cannot render the needed guidance and assistance. As a result, many of those employed to teach in adult literacy programs, whether as paid "professionals" or as unpaid volunteers, are not qualified.

Future Needs

It is hardly surprising to find that instruction suffers from these constraints. Beyond the dropout rates already noted, investigations of efficacy have found that many who "graduate" from programs have not attained the desired literacy levels upon completion and that many more rapidly lapse into virtual illiteracy. The real test of a literacy program is whether its participants are enabled to become independent readers of any materials they choose to read. The little research available on this question raises serious doubts about this outcome. Of course, the fault may not rest only in the instruction. Nonreaders typically live in nonreading communities. Merely enabling people to read does not guarantee that they will actually become readers. The issue can be construed as being environmental as well as individual. Moreover, reading matter itself is often written at levels that make it inaccesssible even to those who have attained reading abilities at some median level.

In the first section of this report, the connection between literacy skills and the knowledge and vocabulary necessary to provide them with meaning was emphasized. That this connection has curricular ramifications is obvious. That curricula often neglect this aspect of their mission is also unfortunately clear. Unless they are supported by research, stronger curricula, instructional approaches, and proper teacher training, it is unlikely that the provision networks can substantially improve their methods or results. Lacking the kind of structures and planning mechanisms that provide cohesion to other aspects of educational delivery, the various programs cannot hope to greatly enhance their outreach or efficacy.

This picture of the network of program provision may convey a false notion of relative plenty. The ability to serve as many as 15-20 percent of those in need of such instruction each year seems impressive, but this notion is not wholly warranted when one examines the various components of instruction. If the system is to cohere, develop the necessary professional underpinnings, and extend its outreach, emphasis must be placed in the future on its substance, methods, personnel, and fundamental self-definition. Literacy instruction has not been made necessary because there is a temporary problem that lends itself to a one-shot attack. Rather, it is a form of education that requires a longer and more firmly anchored view.

Summary

An array of adult literacy programs are sponsored by the federal government, states, local authorities, voluntary organizations, community and four-year colleges, employers, libraries, the military, prisons, religious institutions, and community-based organizations. It has just been estimated that the existing frameworks could encompass as many as 15 million adults annually if they were able to function at full capacity. Altogether, under a billion dollars are being expended yearly, far less than the amount required to mount an effective program. Lacking in properly developed skills to teach adult students, much of the instruction currently provided is not as effective as it should be. Improving the system would require both quantitative and qualitative steps: its scope should be expanded and issues pertaining to curriculum and instruction rigorously examined and developed.

C. EXTENDING THE PROVISION OF LITERACY INSTRUCTION

There are several aspects to the teaching of adult illiterates and functional illiterates which require examination in order for us to understand the requirements for expansion and improvement of current programs.

Little is known regarding the extent of provision beyond general participation figures, but several observations about the participants can be made. As already noted the total of 72 million illiterates is a composite one, including people who have a very low level of ability and those who are unable to read texts written at a higher level. The first group is estimated to include approximately 27 million adults above the age of 16 and encompasses what might be considered the "hard core" illiterates. The second group consists of approximately 45 million people who experience difficulties in reading with comprehension and probably additional difficulties with some of the basic skills (i.e., writing, mathematics, or verbal expression). If priorities were established, the first group would be considered to have the greatest need. It stands to reason that the current enrollment in adult literacy and basic skills programs is characterized by an underrepresentation of the first group and that most participants belong in the second category.

It has long been noted that many adult programs tend to "cream," that is, address themselves to the more competent members of their target audiences. Programs conducted under the aegis of the Adult Education Act, for example, currently enroll an estimated 2.6 million adults in basic skills, ESL, or high-school equivalency programs, but the great majority of these persons are at the upper levels of performance, even though that is not the legislative intent. The other large provider--community colleges--almost by definition serves the more advanced illiterates. Similarly, it is most likely the case that the military, unions, and corporations also "cream." One must conclude that currently available instructional opportunities are woefully inadequate in addressing the needs of those whose situation is most severe.

Outreach and Recruitment

Issues of outreach and recruitment of students loom large in any attempt to increase participation of illiterates. In many instances, students are recruited from among those already associated with the programs providing instruction. Students are assigned to community college courses after enrolling, registering, and being tested. They are in many respects a captive audience. Participants in programs offered by the military and by correctional institutions also have undergone certain procedures that placed them within those contexts; they, too, constitute a population that has been recruited for other purposes. Only in the ABE efforts and in some of the smaller programs does one see active attempts to recruit students for literacy instruction.

Techniques used frequently include the distribution of printed brochures, radio and television broadcasts, referrals from various agencies (e.g., social welfare offices and employment agencies), a minimal effort to recruit by canvassing potential participants through home visits, and "word-of-mouth."

Although all these approaches result in enrollments, they often tend to exclude those in greatest need. England's BBC has had experience in using television broadcasts to recruit illiterate adults and has reported that this approach proved successful. Similar attempts have been tried in the U.S., but they have been sporadic rather than systematic and have often relied on public service "spots" that rarely are aired during prime time. Use of television for recruitment purposes can be expanded, but this will have to be planned carefully to assure that the message will be appropriate and that there will be an adequate level of intensity. Moreover, it is of central importance that those responding to televised appeals for participation be promptly and properly channeled to appropriate programs. Lapses in response, being sent from program to program to seek space, or being given a list of phone numbers to "check out" are likely to discourage those who decide to participate in courses as a result of such advertising.

As has already been stressed, the "hard core" illiterates generally live in communities in which literacy is not viewed as a matter of importance. Often, the

cultures of such communities are nonliterate and cannot provide the motivation or the reward mechanisms necessary to imbue their members with a desire to acquire reading skills. Research into this issue has suggested that a first priority of literacy programs should be to introduce consciousness-raising activities into nonliterate communities in order to motivate individuals to enroll in programs. This, of course, is a complex task requiring a series of interventions that should be planned simultaneously. Literacy courses alone would be inadequate. The type of effort required is similar to those described in the literature about community development and advocated by the Assault on Illiteracy Program, in which local leaders are pressed into service so that their positions can be taken advantage of in seeking to persuade other community members to join in efforts.

Externally-imposed programs may be perceived as unwelcome incursions unless locally-accepted authorities provide them with legitimacy. If literacy programs are to be extended to those with the least developed abilities, thought will have to be given to forging alliances with local groups and enlisting active participation by significant community members and leaders. The community-based model of literacy programs therefore suggests itself as being most appropriate for the conduct of activities in communities with a high proportion of illiterates, within which illiteracy may well be more the norm than literacy.

Curriculum

Once students are placed in classes, issues of curriculum and instructional approach become critical. Many literacy programs have faltered because of insufficient planning of these elements. The technical aspects of reading--encoding and decoding--should not be the main focus of curricula intended for adults. Rather, emphasis should be placed on the content of materials so that they will be perceived by participants as both relevant and interesting. This in turn requires that activities involving curriculum development be based on investigations of the interests and needs of students.

Although there is much material available for the teaching of adults through commercial presses as well as through Laubach and LVA, there has been far too little research on the development of curricula. The content purveyed by programs is of central importance, but the mechanics of reading are often overemphasized at the expense of content. At least some of the dropout rate has resulted from poor curricula. Participants find courses uninteresting and find little to motivate sustained attendance. Teachers are often aware of this situation and respond to it by preparing materials of their own. A number of experimental programs have placed the necessary emphasis on the development of content and curricula for their participants. But it would be incorrect to assume that transferring a successful experience from one area to another will result in similar degrees of success. In many cases, it has been found that effective programs are successful precisely because of the "fit" of the content to the specific needs and interests of students. Transferring such materials to other groups would, of course, eliminate the element of specific interest.

Closely linked with issues of curriculum are issues of teaching method. It cannot be stressed enough that adult learners are vastly different from children and adolescents and that methods of instruction designed for use in schools are very often inappropriate for adults and can cause disaffection. Some of the basic aspects of this phenomenon are well known: Adults should not be made to feel like first-graders simply because they cannot read. Consequently, programs should avoid using primary school facilities in which furniture, instructional material, and teacher attitudes are geared to the needs of children. Adult environments should be created by viewing adult learners as the equals of the instructors.

These common-sense notions are relatively easy to translate into some aspects of program delivery. However, they avoid or neglect the more critical issue of teaching approaches. Here, too, much additional research is necessary in order to support the design of good programs. A great deal of the knowledge that has been amassed and made available through the adult education literature is rarely translated into program practice. Curriculum development should be closely linked with the existing knowledge base so that curricular packages can suggest suitable teaching methods in addition to providing materials. In any

expansion of current learning opportunities, it will be of central importance to pay much more attention to this aspect of programs. One must be aware constantly that a discouraged dropout from a program is an unlikely candidate for re-enrollment in a later activity.

Teachers

Teachers constitute a critical component of any system of education. In most educational endeavors, there is a triangle of interaction among materials, learners, and teachers. In adult literacy programs, the range of qualifications of the instructors currently is very wide. Some have received a certain amount of training and are certified. Some have been trained and certified as school-teachers and apply teaching skills that are inappropriate. Others have no training at all and are not properly equipped for the role. Realistically, it will not be possible to adequately train large cadres of instructors for adult literacy work. In the future as in the past, much of the work will be carried out by people who do not have adequate teaching skills and who, regardless of their good intentions, may be unequal to the task.

The only viable alternative to an unskilled teaching force is the provision of systematic and intensive supervision. In such a fashion, supervised teaching becomes a form of in-service training that can develop good teachers over time. In volunteer-based programs this would, of course, add a relatively large expense to operations, but this is an essential outlay. In programs that rely on salaried "professional" teachers, a combination of better pre-service training and ongoing supervision is also critical.

Mechanisms and programs for the training of teachers of adult illiterates are few and far between. Because the entire "system" of delivery is so fragmented and uncoordinated, it lacks the logistical backing that general education receives. Expansion of the current system of education for adults requires that careful attention be paid to support mechanisms among which teacher training should be central.

if one assumed that a system of functional literacy education should be able to offer instruction to approximately 10-15 million people each year. The cost components would include personnel, curricula, training, supervision, maintenance of facilities, advertising, recruitment of participants, and the overhead costs of participating agencies and organizations. Costs should be viewed in two complementary categories: provision of instruction and backup support required to nourish the instructional system.

A backup mechanism should consist of the following elements: research and development in respect to curricula and instructional approaches, programs and mechanisms for the training of instructors and supervisors, coordinating bodies to provide programs with guidance and technical assistance, and vehicles for the creation, publication, and distribution of program materials. At present, these elements are either altogether lacking or exist far too minimally to function as they should. To the extent possible, existing mechanisms should be strengthened rather than new ones created.

The establishment of several centers for the purpose of conducting research and development is not too costly an endeavor. However, the creation of the numbers of teacher and supervisor-training programs needed would be extremely expensive. Assuming that a full-time instructor can work effectively with no more than 40 students, 250,000 teachers would be required to teach 10,000,000 people, and an additional 125,000 would be needed to work with 15 million. Costs per trainee for teachers in the regular school system currently range from a low of about $2,500 for a one-year program to a high of $16,000 or more for a full four-year program. Assuming that an adequate training program for teachers of adult illiterates would require at least six months of instruction, costs could not be held much below $1,500 to $2,500 per trainee, with an overall required outlay of between $375 million and $625 million for 10 million persons. Obviously, if the system were expanded so as to reach 15 million adults, 375,000 teachers would be needed for an outlay of nearly $1 billion.

Even if such resources were made available, they could not be disbursed quickly because the faculties required to staff this training are not in existence. A five-year activity might phase the development of teacher training so that

during an initial phase emphasis would be placed on the training and development of an adequate cadre of specialists who might then become the trainers of teachers in a larger effort. Once an initial corps of teachers has been brought into being, the training function becomes one of maintenance so that replacements will be trained as the system requires them.

During an initial national program for literacy instruction, then, outlays for the support and training mechanisms above could require as much as $1 billion annually, declining to no less than half that amount on a permanent basis.

The major costs, of course, are those necessitated by the instruction itself. There is no logical system for estimating these requirements because of the variable nature of the delivery vehicle. There is a myth that heavy use of volunteer instructors will cost little. Indeed, the current Adult Literacy Initiative of the U.S. Department of Education and the national Ad Council awareness campaign both place a heavy emphasis on the role of the volunteer. Although instruction delivered by volunteers is less costly than that given by paid teachers, it nonetheless has attendant budget requirements. Assuming that all volunteers are required to undergo serious training and preparation for their roles and then are given close supervision by paid personnel, the overall direct cost of instruction would be considerable. At best, it has been calculated that a program based on volunteers can "save" a third of the cost of a fully-paid activity, and under certain circumstances perhaps as much as a half.

Because education is a labor-intensive activity, the major outlays are those needed to employ individuals as teachers, supervisors, and administrators. In addition to the 250,000-375,000 teachers needed to serve 10-15 million adult illiterates each year, all the available literature indicates that one supervisor or administrative support person would be needed for every 50 teachers, for a combined labor pool of from 255,000 to 382,500. Assuming that each person receives a very low salary of $15,000 a year on average, a minimum expenditure of between $4-6 billion annually would be required for compensation alone. Assuming a certain "saving" through the use of volunteers, this figure could perhaps be reduced by a third or slightly more.

Adding all the other components of a program of this nature (such as materials, space, and training) would cost approximately $7 billion to $9 billion a year. A lower expenditure would result in less activity and would severely compromise the quality of the effort.

Volunteers

The use of volunteers raises another issue. Volunteer teachers have often been found to be unreliable in terms of sustaining effort. Instruction marred by frequent absences and turnover of instructors is harmful to the educational process and can discourage participants from continuing. Volunteers could be required to devote a minimum amount of time as a condition of volunteering. Unless something of this nature can be enforced, it is questionable whether volunteers will be able to contribute that which is currently being expected of them. It may also be possible to elaborate roles other than teaching for some volunteers. Volunteers might provide assistance in various logistical aspects of running a system, as they already are doing in some instances.

Ideally, before a massive campaign is mounted to vastly increase the numbers of volunteers in the system, these issues should be carefully assessed and planned. However, as such an effort is already under way, the questions should be addressed with the greatest urgency. There is no substantial evidence at present that programs in which instruction is provided by professionals are significantly more effective than those served by volunteers. Indeed, research could make an important and immediate contribution to our understanding of the attributes of effective instruction and instructors.

Future Needs

As has been seen, many programs are mounted by varieties of community and local groups lacking both the expertise and the resources necessary to conduct effective programs. It seems most likely that the "system" of instruction for adult illiterates will continue to have this characteristic. Such local agencies re-

quire a great deal of technical and professional assistance. This could perhaps be provided by state and regional bodies established for this purpose with which local groups could communicate. Their role and function should be to provide the kind of help that would be most appropriate to the structure of the system. A local group that wants to engage in a literacy program should be able to call upon bodies of this nature for assistance in planning the activity, setting the curriculum, training the personnel, and supervising the proceedings. Such a framework would go a long way toward providing the currently unconnected learning opportunities with cohesion. Fortunately, such groups have recently been formed in many states, but unfortunately, in nearly half no significant activity has been reported.

The development of appropriate curricular materials and instructional approaches and the training necessary to set the system in a more positive direction require a great deal of input from people who devote themselves to the study of adult learning and education, many of whom are based in universities. Within universities and schools of education, adult education has not been a popular or central area of concern. Ultimately, it will be necessary to provide the field with a new injection of purpose and the means by which to develop. But it should not be forgotten that much of the knowledge and experience that has accumulated over the years should form one of the central pillars of the field. Means have to be sought to properly cull the lessons that have been gained and to identify roles for those engaged in the practice of adult education, not just its study.

If the Advertising Council's awareness campaign does result in large numbers of people desiring to teach and learn, the currently available system of delivery will be inadequate. Steps have to be taken immediately to create the conditions necessary to expand the learning opportunities being offered and to assure that the quality of both instruction and learning will be such that the programs will graduate literates. An activity for which success cannot be reasonably expected should not come into being. It can ultimately have detrimental results in that it can discourage students from further education and learning. Those planning the national effort should devote a great deal of attention to the requirements of a national system as outlined in this section. Failure to do so would be tantamount to an abdication of responsibility.

Summary

Among the two main component groups of the composite number of 72 million functional and marginal illiterates, the first, numbering 27 million, should form the top priority in terms of literacy programs. Not only are their needs the most urgent, they are also those least served by the current "system" of provision. Reaching and teaching these "hard-core" functional illiterates is the most difficult challenge for available curricula and instructional approaches. Development of appropriate teaching materials and methods is, then, one essential need. Another is the provision of training to instructors, particularly in regard to adult learning. Until such time as an adequately professional cadre of teachers will be available it will be necessary to compensate for lack of qualification by adding increased amounts of good supervision. Poor instruction can easily discourage program participants and perpetuate the high dropout rates characteristic of most literacy programs.

The development of appropriate curricula for the more "advanced" group is a prerequisite for improved programs for that population. In both cases curricula should be based on solid knowledge of adult learning, requiring in turn that additional research be undertaken and that new and present research findings be made available and put into practice. The adult literacy effort cannot develop effectively without a well-planned and executed R&D component. Similarly, instruction cannot be effective unless it is carried out by properly trained instructors. All of these measures clearly require that appropriate budgets be allocated and appropriated to the effort at all levels.

D. RECOMMENDATIONS: THE NECESSARY NEXT STEPS

In the preceding sections of this report, several aspects of literacy definition and program delivery were discussed with a view toward establishing the parameters of need. At the present time, a national awareness campaign has begun operation in an effort to recruit both volunteer instructors and additional participants for programs. This campaign has set a goal of expanding the current system so that vastly increased numbers of individuals will seek instruction and appropriate instructional mechanisms and teachers will be made available. In this section, a series of recommendations aimed at providing the delivery system with the tools necessary to cope with increased demand will be suggested.

The current effort cannot wait for the more major improvements mentioned in the previous section. Their implementation would require a longer period of time than would be available. Therefore, the following recommendations distinguish between short-term and long-term needs of the system.

For both the short and long term, improvements are necessary in two central aspects of literacy instruction: support mechanisms, and operations. The recommendations that follow emphasize both areas.

Short-Term Supports

- In the immediate future, new research will not be of assistance to providers of literacy instruction. The amount of time required to design, execute, summarize, and properly disseminate research findings is simply too great for such endeavors to have an immediate impact. As an alternative, it is recommended that currently-available knowledge, experience, and expertise be summarized in a practical and usable fashion, focusing on three main areas of concern: (1) learning among adult illiterates of various backgrounds and characteristics, (2) curricula for adult literacy and functional literacy programs, and (3) teaching methods. This compendium could be assembled in a relatively short time and serve as a guide to

people who are designing programs. A companion guide would deal with organizational and administrative aspects of program delivery. Although much of the material that would be included in these guides is already available in a variety of publications (including the recent work of B. Dalton Bookseller), it is not currently written and assembled in a manner that is sufficiently comprehensive or of maximum practical use to practitioners. The amount of effort required to produce these guides would not be great, and they could be made available at low cost within a matter of months. Leadership for such an effort might be assumed by the U.S. Department of Education.

- A second recommendation relates to improved communications between the several factors and bodies active in the provision of literacy instruction. At one level, it is important to establish improved communications between literacy providers and the producers of materials. Although such communications exist minimally, there is too little feedback from the field to writers and publishers, to the extent that many of the materials being produced neither reflect the needs of the field nor mirror its experience. At a second level, literacy providers working within the same communities (e.g., ABE, Laubach, LVA, CBOs, correctional institutions, and libraries) also need to meet increasingly in order to better coordinate their efforts, avoid duplication, and plan for local service in concert. The model for such coordinating meetings already exists in a number of states and cities and could be established easily and rapidly elsewhere around the country. Local initiatives of this nature could, perhaps, be generated by the awareness campaign itself. Bodies that already are in existence should be strengthened.

- A third recommendation focuses on the training needs of instructors. Training is required both for those already teaching and those who will be added to the teaching rolls. Until it becomes feasible to create training programs that will generate the numbers and quality of teachers needed in a long-term effort, certain makeshift activities will be required. To this end, it is recommended that currently-available training efforts be surveyed in order to select training components that could be enlarged upon beneficially. It is also recommended that immediate attention be

devoted to the development of training programs of short duration, possibly to be conducted during the coming summer months. These could be staffed by members of university faculties, Laubach, and LVA staff, and other practitioners and teacher trainers now functioning in the system, and they could be organized by senior and community colleges around the country among others. Such an effort could be mounted by identifying a group of individuals who would devote the coming months to planning, organizing, and executing the necessary training.

Adequate funding will be required for this training effort. Assuming 13-16,000 participants in a summer program of three months duration, and a per-person cost of $750 to $1250 (half that of a full six-month program), outlays would be $10 million at a minimum and as much as $20 million. The importance of this activity cannot be overemphasized; it is central to any attempt to extend current provision. It is proposed that this aspect of the effort be achieved through expanded funding of the Adult Education Act and its parallels at the state level.

- Finally, it is recommended that statewide centers be established in all states with the express objective of providing technical assistance to local providers. Such technical assistance would include help with curriculum and instructional method design, assistance with the training of teachers and possibly also with supervision, and help with raising funds. State bodies of this nature already exist in some states and cities and in others they could be developed by bringing together agencies that already are functioning in both the public and the private sectors, including the voluntary agencies. Some base funding would be required in each state to implement this recommendation.

Short-Term Operations

- The current system caters to between 4.5 million and 6 million individuals. A goal of the current effort is to double if not triple that number. To achieve this goal, a series of activities must be launched

immediately to enable the system to expand rapidly. Such expansion can be attained only with a large infusion of funds to providers at all levels. Moreover, the national offices of literacy agencies and their state and local affiliates will all require budgetary increases of major magnitude in order to cope with the potential increased demand.

Of the three levels, the local delivery level is the most important insofar as the expansion of services is concerned. On their currently very small budgets of between $10,000 and $100,000, local providers can hardly cope with current activities, far less with expansion. Monies are required to engage additional teachers, locate and rent additional facilities, purchase and develop large amounts of instructional materials, and engage both supervisors and administrators.

It is not possible to establish the exact amounts of money that will be needed. Every activity has its own cost basis and requirements. Funding can be increased in two ways: disbursing contributions from foundations and the private sector to programs directly, and establishing pools at the state level. Such pools would receive additional allocations from federal and state resources and serve as an address for organizations that wish to contribute to the effort. Additional federal and state funds in turn are contingent on the enactment of emergency legislation that would make possible allocations of monies over and above current levels. A lobby campaign will be required at both levels--federal and state--to pave the way for such legislative action.

- Recruitment and training of teachers is critical for any expansion of provision. Although the awareness campaign may result in increased volunteerism, it should be recognized early that not all volunteers can actually become teachers. Screening mechanisms are required. The screening effort should be established at the local level, close to where the teaching will take place. In addition, it will be necessary to quickly develop and implement teacher training efforts.

- Much better coordination and planning of the effort at all levels is crucial. So far, the awareness campaign has tended to focus on "getting the message out" rather than on the operational aspects of program delivery. It is recommended that where they do not already exist, comprehensive planning and coordinating bodies be rapidly brought into being at the federal, state, and local levels in order to plan for the orderly development of literacy services and communicate funding and other needs to legislative officials and government leaders. Lack of coordination, needs analysis, and adequate funding could lead to a chaotic situation in which new students will be blindly casting around for programs while the agencies will be unable to adequately meet the demand. It is unlikely that the summer months will be marked by increased instruction of adult illiterates. It is, however, possible to make use of this period to bolster planning and infrastructure development so that a full-scale expanded program can begin functioning in the fall. (It should be noted that in some instances it may be possible to combine the statewide technical assistance centers recommended above with the comprehensive planning bodies recommended here, but in either case some base funding will be required.)

Long-Term Supports

In the long run, a good system for basic skills provision cannot be patched together from a series of disjointed and unconnected activities. A concerted effort is needed that will place appropriate emphasis on a number of program components and begin developing them in a more systematic and serious fashion. Insofar as support mechanisms are concerned, the following actions are recommended:

- A national center for research and development in adult literacy (similar to the national centers and laboratories already sponsored by the National Institute of Education for other purposes) should be brought into being to focus on the areas of adult learning, curricula, and instructional approaches. This center should have a well-planned system for dissemi-

nating the results of its work so that it has the necessary impact on the field and on practice.

- Improved communications between practitioners, producers of materials for instruction, and researchers should be fostered, possibly through a series of well-designed meetings, workshops, and conferences. There has been some movement in this direction, but there should be substantially more.

- A national center that would focus on teacher and supervisor training is needed. Such a center could produce materials for state and local agencies as well as national groups engaged in literacy work and for training teacher trainers who could then operate in more localized situations. If the goal is to quickly expand the current teaching force and the number of adult illiterates receiving instruction, the sooner such an institution can be brought into being, the better.

- Coordination and technical assistance capability should be institutionalized. Whereas this could best be effected at the state level, a national center should be established to foster the formation and constant support of state and local bodies. The current system is simply too disjointed and fragmented to facilitate better communication and the receipt of the kinds of technical assistance necessary. This center would, of course, require a steady source of funding, preferably through appropriate national legislation and possibly through an amendment to the Adult Education Act.

- Literacy is a public issue that has excited interest and action on the part of many different organizations and agencies in the public and private sectors. Formation of a national board (or state-level equivalents) for the purpose of constituting a lobby for literacy could be of importance in keeping the issue on the public agenda and helping to direct support to literacy efforts. It is recommended that such a board be created.

The steps noted above all cohere into an integrated approach to developing the supports that the system of literacy provision will need in the coming years.

No national effort of this type can be expected to have an impact unless it has such support on both the professional and political fronts. Moreover, long-term needs should not be neglected because of short-term demands. The two can be planned and brought into existence simultaneously.

Long-Term Operations

- The goal of 10 to 15 million participants per year in literacy programs constitutes a doubling at minimum and a tripling at maximum of current program capacity. Over time, it will be necessary to train and bring into service 250,000 to 375,000 instructors (more to compensate for turnover) to handle the instructional load. It will be necessary to double and possibly triple existing instructional facilities. It will be necessary to develop new curricula and materials to serve the needs of a larger and more diverse system of adult education. That this undertaking will require vastly increased funds has already been established. Generating such funding will require new legislation. The process of generating such legislation should begin forthwith.

- Delivery of education to such large numbers of people cannot ultimately be achieved unless the current system of delivery receives a sorely needed injection of funds, personnel, facilities, and guidance. Sporadic and small efforts such as those which characterize current programs are inadequate to provide a greatly expanded service. While the federal government should play a key and central role, it will need confederates at all levels of government, in all sectors of society, and on a sustained basis. The recently-launched awareness campaign can be utilized to this end by stressing the importance of involvement and indicating mechanisms through which that involvement can occur.

- The provision of literacy instruction need not and should not occur solely through the mechanism of specialized adult literacy programs. There are a great many adult education activities in which literacy instruction, particularly in the broader sense of general education discussed earlier,

is occurring on a regular basis. Many such programs do not think of themselves as literacy efforts and consequently are not tied into the "literacy network." Yet they constitute a very important aspect of the overall activity envisioned and should be encouraged to take part actively in all its components. Similarly, there are agencies and organizations that are actively pursuing policies and engaging in programs that address the functionally and marginally illiterate population although they do not view this as their primary mission. The American Legion, the General Federation of Women's Clubs, and various parent education efforts are examples. The incorporation of such efforts into the national adult literacy initiative should definitely be broadened and continued.

- Community-based programs, whether formally associated with ACBE or not, are a potentially significant delivery vehicle. Although only limited attention has been given to these programs in this report, it is taken for granted that such activities are a central factor in the literacy network and should be an integral part of an expanded system of provision.

- Again, increasing the system's capacity will require new funding and additional funding sources for agencies, institutions, and programs engaged in the delivery of instruction at the local, state, and national levels. This will require that the bodies established in the short-run for planning programs, assessing needs, monitoring activity, providing technical assistance, and interacting with legislative and government officials be strengthened and supported over the long term. Without continuous support for these groups, it will not be possible to sustain the goals of an expanded system of provision or to develop a coherent program of literacy service.

The goal of a fully literate society is an admirable one. Words and rhetoric, however, will not bring it to pass. In the period ahead, concerted action on the part of all those concerned about illiteracy and interested in working for its alleviation is going to be critical.

References

1) All figures appearing in this paragraph and throughout this paper are taken from U.S. Office of Education published and unpublished sources, unless otherwise stated. Many of these figures appear and are elaborated upon in Carman St. John Hunter and David Harman, Adult Illiteracy in the United States, Updated edition, McGraw-Hill, New York, 1985.

2) The source for this figure is the U.S. Department of Education, but some estimates are substantially higher. A Department of Labor estimate puts the figure as high as 75 percent.

3) Discussion of the concepts of literacy and illiteracy draws from the following studies in which the various themes raised are expanded upon: David Harman, Community Fundamental Education, Lexington Books, 1974; Thomas Gorman (ed.), Language and Literacy, International Institute for Adult Literacy Methods, Teheran, 1977; Sylvia Scribner and Michael Cole, The Psychology of Literacy, Harvard University Press, Cambridge, 1981; Robert Disch (ed.), The Future of Literacy, Prentice-Hall, Englewood Cliffs, 1973; David Harman, The Literacy Dilemma, National Adult Literacy Project, 1984; Richard Hoggart, The Uses of Literacy, Chatto and Windus, London, 1957; Carman St. John Hunter and David Harman, Adult Functional Competency: A Report to the Office of Education Dissemination Review Panel, Division of Extension, University of Texas, Austin, Texas, 1975; John B. Carroll and Jeanne Chall (eds.), Toward a Literate Society, McGraw-Hill, New York, 1975; and Donald Fisher, Functional Literacy and the Schools, National Institute of Education, Washington, D.C., 1978.

4) For further elaboration of these arguments see Paul Houts (ed.), The Myth of Measurability, Hart, New York, 1977, and particularly David Harman, "Reading Tests," and Vito Perrone, "On Standardized Testing and Evaluation," both in that volume.

5) Personal communication with Paul Delker, Director, Adult Education Division, U. S. Department of Education, Washington, D.C.

6) See Helen H. Lyman, Literacy and the Nation's Libraries, American Library Association, Chicago, 1977, for an elaboration of the role of public libraries in literacy provision.

7) Figures used in this section have been communicated by Laubach Literacy Action and Literacy Volunteers of America to the Business Council for Effective Literacy.

8) Estimates in this section have been conveyed by Chris Zachariadis of the Association for Community Based Education.

9) See John Rouche et al, College Responses to Low-Achieving Students: A National Study, HBJ Media Systems Corporation, Orlando, Florida, 1984, for a discussion of this aspect of literacy provision.

10) Training Magazine, Annual Survey of U.S. Training and Trends Census, 1984, provides figures on the corporate role in the provision of basic skills education for employees.

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